

Y-12 resumes wet chemistry operations

By Ellen Boatner

Wet chemistry, the most complex process associated with Enriched Uranium Operations, resumed March 19 at the Y-12 National Security Complex after more than eight years. The National Nuclear Security Administration authorized resumption of the wet chemistry section of EUO, which is the recovery and purification process for enriched uranium. EUO operations were halted after a safety shutdown in September 1994.

The authorization is one in a series of milestones in Y-12's phased plan to fully restart manufacturing operations. The final step is expected to be complete in July 2004.

"This is a truly significant event," said President and General Manager Dennis

Ruddy. "I am proud to be a part of the incredible teamwork between BWXT Y-12 and NNSA. This is an indication that Y-12, through an aggressive management plan, will return to its full production capabilities."

Wet chemistry involves six processes that are essential to Y-12's uranium-recovery program, enabling workers to extract and purify usable quantities of U-235 from scrap metal and other waste streams. The complex piping system is being brought back to life gradually during the next six months. The work enables Y-12 to recapture virtually all of the enriched uranium used in plant operations.

"It has taken quite a few years, a lot of manpower and a lot of extra effort from everyone to be able to achieve this success," said EUO Restart Director Robbie Cordani. "We look forward to fully resuming all phases of operations and maintaining safe, secure operations."



Ted Sherry, Deputy Manager of the NNSA Y-12 Site Office (at left), congratulates Dennis Ruddy on the EUO Wet Chemistry Restart success with Dale Christenson, Jimmy Stone, Robert Cordani and Buddy Conner in front of 9723-25.

Restarting manufacturing operations timeline

| 1994 | 2000 | 2001 | 2003 | 2004 |
|--|---|---|--|---|
| SEPTEMBER | APRIL | MARCH | MARCH | JULY |
| Wet chemistry shutdown—safety concerns | NNSA approves resumption of fissile material handling and storage | Restart of reduction and pour-up operations | Resumption of wet chemistry operations | Restart of the hydrogen fluoride system (projected) |



Firefighters Roger Paul and Michael Bridges extinguish flames in a live-fire training exercise.

Live-fire training heats up

By Kathryn King-Jones

"Live-fire" training can be a life-or-death matter. According to Captain David Fahey of the Y-12 Fire Department, deaths in such training exercises are on the rise.

Fahey notes that "some of those fatalities result from heart attacks, but others occur because of unanticipated behavior of the fires." It was the latter type of fatality that Captain Fahey had in mind when he requested an evaluation of Y-12's fire training building.

Through Fahey's work with the Knox County Fire Investigation Task Force, he met Special Agent Dennis Kenamer of the Bureau of Alcohol, Tobacco and Firearms. Kenamer worked with the task force in setting up thermocouples to measure temperature during test fires.

Fahey thought that an evaluation of the fire temperatures during Y-12's training exercises would be useful, and his management concurred. He and Captain Tim Dougal, the training officer, arranged to bring in Kenamer and Detective

From Denny's Desk. . .

Reorganization will help us meet expectations



Many of you are aware that we have just undertaken a staff reorganization. During this first phase of reorganization, the focus was on top-level management. These decisions were based on a goal of having the minimum number of senior management representatives necessary for an effective decision-making

process. We are continuing to look at how to streamline the organization but still have the representation necessary for better communication.

So, if you are asking yourself, "How does this reorganization affect me?" this is probably a good opportunity to outline a few of my management principles. Although these core principles may sound simple, when followed, they will yield great returns, and we will see the differences almost immediately.

The first two are quite fundamental. Come to work every day and work to your potential are the same expectations every employer has for its employees. Get to work on time every day unless you are sick or on vacation and, while you are here, do your best at your assigned tasks. This, of course, is just common sense.

The third expectation is to find better ways to do your job. This could be as simple as not filling out a form or not writing a monthly report that no one reads anyway. Any task that does not add value and hinders productivity is time better spent elsewhere.

Be honest is the fourth and final core expectation. For example, if you are involved in an accident, be honest. Tell your supervisor exactly what happened. Problems can be solved when people are honest, which will lead to a better work environment for all of us.

When we begin to apply everything we do against these four expectations, the changes will be incredible. If we apply these expectations to our daily routine, Y-12 will become a better and safer place to work.

Safety records flourish with Behavior-Based Safety

By Sandra Plant

Behavior-Based Safety is about to become a way of life at Y-12.

So what is Behavior-Based Safety? According to Dennis Ruddy, president and general manager, BBS is "a tool to look at the workplace and use what you know about the work practices and workplace to change things before they cause an accident."

The Atomic Trades and Labor Council has already started a behavior observation process. "The BBS initiative championed by Mr. Ruddy will bolster this program and help it become established throughout the site," according to Craig Ferguson, manager of Industrial Safety.

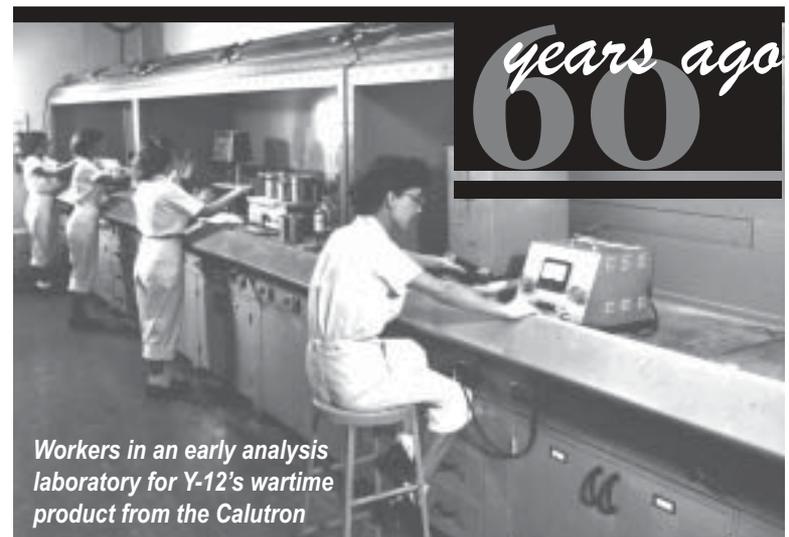
BBS engages all employees at all levels in the continuous improvement of safety through identification of hazards, measurement of safe practices and improvement of systems. It also is a tremendous tool for gaining employee involvement.

Employees will be trained to observe and provide feedback for ongoing work activities. While implementation planning is still ongoing, it will include an organizational functioning survey, focused training, leadership coaching and the employee engagement process. The survey will aid in tailoring the implementation to Y-12 needs.

"The benefits of BBS are broader than just safety," said Ferguson. "It will have a positive impact on conduct of operations, communications and customer service—just to name a few."

According to Ferguson, BBS will "really be a catalyst to launching a world-class safety program at Y-12." During the first year that BBS was implemented at the Pantex Plant in Amarillo, Texas, the facility saw a 46 percent reduction in Occupational Safety and Health Administration recordable incidents and a 59 percent reduction in lost-time cases.

With Y-12 already experiencing an 11-year low in accident rates, the prospect of getting better is very exciting.



Workers in an early analysis laboratory for Y-12's wartime product from the Calutron

Live-fire training heats up

(continued from page 1)

Mike Dalton, a fire investigator with the Knox County Sheriff's Department, to measure the ambient temperature.

Kenamer and Dalton measured both a free burn and live-fire training. In both tests, the temperatures created by the test fires did not approach the deadly flashover range (from 1100 degrees Fahrenheit to 1400 degrees Fahrenheit).

The expertise that Kenamer and Dalton provided to Y-12 and firefighters could have cost tens of thousands of dollars. The assurance that their testing provided to Y-12 firefighters is certainly priceless.

What is flashover?

Flashover occurs when everything in the fire compartment (room) reaches ignition temperature and bursts into flames, including the turnout gear on a firefighter. Monitoring the interior temperature during training exercises ensures that fires are extinguished before reaching this deadly situation.

Quality Evaluation and Surveillance ensure stockpile safety, reliability

By Patrick McCoy

At Y-12, weapon components and materials undergo a variety of nondestructive, destructive and other tests to identify changes related to the length of time a weapon has been stored or deployed. Bill Reis, Director, Directed Stockpile Work, compares Quality Evaluation and Surveillance activities to autopsies: "You take a unit, break it down and evaluate the effects of storage and aging on each component, part and material in the weapon."

Carl Cardwell, QE and Surveillance program manager for DSW, agrees with Steve McGhee, QE group leader and member of Manufacturing Technical Support, who stated "QE is like a forensic investigation. Every component and material are examined and analyzed to better understand the effects of aging and storage conditions and the possible influence these effects may have on the safety and reliability of a weapon."

Much of the QE work is performed in specially controlled environments. The recent Senate ratification of the Moscow Treaty limiting the deployed U.S. and Russian stockpiles may increase the QE workload. The treaty does not mandate dismantlement or demilitarization of warheads exceeding the limit; however, the long-term storage of such warheads makes the QE data even more important.

The information gathered from QE and Surveillance is communicated to the Nuclear Weapons Complex through QERs (QE technical reports), which contribute to Stockpile Life Extension Programs by providing interpretation of essential data for advanced simulation and computer models. These simulation techniques help certify the stockpile's safety and reliability to the President and Congress.



Mark Hopkins, a general supervisor in Product Certification and an American Society of Non-Destructive Testing (ASNT) Level III Radiographic expert, examines a high-energy digital radiographic image during system testing.

Digital radiography

Through the efforts of the Advanced Simulation and Computing or Advanced Design and Production Technologies and Stockpile Readiness Campaigns, Y-12 now has a high-energy digital radiographic capability. Radiographs taken during production and QE reveal respectively the original appearance of components, and the

effects of aging. By comparing current radiographs with those taken during production, physicists validating and certifying the safety, reliability and performance of the stockpile can identify possible deviations from the as-built design. The advent of computers and digital imaging technology has created a tool that is faster and easier to use, and also less stressful on the environment because of a reduction in photographic film use and processing. Using an automatic positioning

device and a computer to view high-resolution digital images, positioning a target for just the right image and view can be a matter of minutes. Speeding up the QE process will improve the quality of Y-12's product, enable faster "throughput" and reduce waste from traditional photographic processes.

PICNIC! MAY 9, 2003

ALL BWXT Y-12 employees and their families are invited to attend. Retirees who are YES members are also invited.

Where

Clark Center Park

When

4:00-8:00 p.m.

Serving

5:30-7:00 p.m.

Tickets

| | |
|-----------------|-----------------|
| YES Members | Non-Members |
| \$3.00 Adults | \$4.00 Adults |
| \$1.50 Children | \$2.00 Children |

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yes.
Y-12 Employer Society

Y-12
National Security Complex

SOCIETY FOR TECHNICAL COMMUNICATION

Communications Partners Program receives awards

Congratulations are in order for the Y-12 National Security Complex winners of the 2002 Society for Technical Communication regional competition. Both of Y-12's submissions, which were produced by members of the Communications Partners Program, won awards. The *BWX Tymes* won an award of excellence, and the Y-12 fact sheet won an award of merit.

Communications Partners Program staff members recognized at the competition ceremony were Ellen Boatner, Kathryn King-Jones, Betty Martin, Sandra Schwartz, Heidi Spurling and Bill Wilburn.

The purpose of the program is to make more efficient and economical use of staff resources and expertise within Public Affairs and Communications Services while improving the internal and external communications of the Y-12 Complex.

More information on the program is available at <https://www-internal.y12.doe.gov/PR/commplan.pdf>.

The one to watch—ISSM

By Kathryn King-Jones

Most Y-12 employees have heard about Integrated Safeguards and Security Management. What most of us don't know is that a Y-12 director played a key role in developing an ISSM video that could be used by all U.S. Department of Energy sites.

Judy Johns, division manager of Safeguards and Security, Counterintelligence and Policy, joined the DOE ISSM team late in the process, but she certainly left her mark. According to Jon H. Todd, Office of the Chief, Defense Nuclear Security, the team was looking at "vehicles to communicate what was going on in security." One of those vehicles was a video, and that's where Johns came into the picture—literally.

Maggie Wood, senior technical security advisor, DOE-Albuquerque, noted that "the video would not have happened without Judy Johns." She noted that Johns worked closely with the videographers, travelling with them to shoot footage.

"ISSM: Science and Security Working Together" was not intended to be "a bunch of talking heads," said Johns. Indeed the 11-minute video is quite engaging and features footage of Y-12 as well as Asa Kelley, division manager of Projects.

Rather than a deadly dull recitation of ISSM principles, the video focuses on what has worked well at sites across DOE. Or, as Johns states, "documenting what you're already doing."

Johns' video has been well received. Todd stated that "the video does an excellent job in describing the ISSM process and the feedback has been highly complimentary."

To obtain a copy of the video, please contact Sue McKenzie (ddm; 576-3849).

"The ISSM video is being used in many venues to educate employees about how ISSM works."

—Jon Todd, Office of the Chief, Defense Nuclear Security

Quote of the month

“Determine never to be idle . . . it is wonderful how much may be done if we are always doing.”

—Thomas Jefferson

The eyes have it

Today in the United States, more than 100 million people use computers. As a result, more than half of them experience eyestrain, headaches, blurred vision and other visual symptoms related to sustained computer use. This type of stress on the visual system can also cause body fatigue and reduced efficiency at work.

Our ancestors had hunters' eyes—used for spotting game or danger at a distance. But during the last 50 years, nearly all of our work and much of our recreation (e.g., video games) have shifted the focus of our vision to arm's length.

Although computer manufacturers have improved their products, many computer users still experience visual stress because there is an increase in the number of necessary eye movements and focusing skills. Poor lighting conditions (glare and distracting reflections), the flicker rate of the screen and the extended amount of time spent on computers are other causes of our eye stress.

Computer visual stress may underlie many direct and indirect symptoms. Eyestrain is a common direct symptom, while the need for shifts in posture and muscular strain resulting from poorly arranged work stations cause eye problems indirectly and other physical problems directly.

Want to rest your eyes? Hold your thumb 6 inches from your nose, and focus on your thumb. Take a deep breath and exhale slowly. Then focus on an object about 10 feet away. Take another deep breath and slowly exhale. Repeat this "eye"ercise 15 times.

Computer stress symptoms

- *Headaches during or following computer use*
- *Irritated and/or dry eyes*
- *Blurred vision*
- *Slow refocusing when looking from screen to distant objects*
- *Frequently losing place when moving eyes between copy and the screen*
- *Difficulty seeing clearly at a distant after prolonged computer use*
- *Occasional doubling of vision*
- *Changes in color perception*
- *Changes in glasses prescription*



Safety Spotlight

You may think you're safe in your home, but if you want to rest easy, there are certain precautions you can take.

According to the National Safety Council, there were 29,500 deaths connected to accidents in the home in 2000.

Follow these tips to avoid becoming a tragic statistic.

- **Check your smoke detectors.** Fire kills more than 2,900 people and injures 16,000 each year. Most fires occur when people are asleep. Install a smoke detector on each floor and outside each bedroom. Change batteries at least twice a year.
- **Buy carbon monoxide detectors.** Carbon monoxide is an odorless, colorless and tasteless gas. This deadly gas killed 300 people last year and sent thousands more to the hospital. The detectors cost between \$40 and \$170.
- **Invest in nightlights.** It may sound hokey, but a simple nightlight could prevent you from tumbling down the stairs and breaking your back, hip or neck.
- **Drop a few bucks on outdoor motion-sensor lights.** Not only will they help you see your way, they can also scare off would-be burglars. Usually you can replace existing light fixtures with motion-sensor lights without any additional wiring.
- **Other items for home safety include:** deadbolt locks, rubber-suction bath mats, handrails on stairs, fire extinguishers, flashlights, a fire evacuation plan and posting local emergency numbers by a central phone.

SAFE AT HOME? Think again.

—adapted from the National Safety Council Web site

Environmental Management System implementation begins

By Melissa Leinart

The Y-12 National Security Complex is implementing an Environmental Management System that conforms to an international standard called ISO 14001 with a goal to complete the implementation by September 31, 2004.

ISO 14001 is a widely accepted voluntary international standard for environmental management that works to improve performance. This standard is similar to Integrated Safety Management in that both plans are based on a “plan, do, check and correct” cycle for continual improvement and contain similar requirements for work planning, analysis of hazards, controls, assessments and feedback.

In early 2002, a team was formed to guide ISO 14001 EMS development and implementation at all BWXT Y-12 facilities. The team was comprised of experts in air, wastewater, storm water, solid waste and pollution prevention.

Beginning in March 2003, EMS teams for facilities and organizations began forming to identify and rank potential environmental issues relating to specific activities. This process will result in selecting improvement projects that will minimize the impact of Y-12 activities on the environment.

Mentoring program expands

Y-12's mentoring program recently graduated 66 mentees. Since the program's inception, 93 new college graduates have completed the six-month partnerships with experienced employees.

The mentoring program was established in July 2001 to:

- recruit and retain high-quality employees,
- improve performance and productivity of mentees and
- facilitate the transfer of corporate culture and values.

According to Mary Benton, manager of Mentoring and Job Rotation, there are three mentoring programs in process—an interim program with 18 new hires, an administrative professional program scheduled to begin in March 2004 and a fire department program in the planning stages.

Employees in grade level 7 and above may participate as mentors. For more information about the mentoring program, contact Mary Benton (b9e; 574-0843) or visit the program's Web site at <https://www-internal.y12.doe.gov/HR/mentor.html>.

Service Anniversaries

April

35 Years

Facilities, Infrastructure and Services: Donnie W. Burney
Manufacturing: Willie J. Mitchell

30 Years

Engineering: Joseph A. Mallard, Jr.
Facilities, Infrastructure and Services: Jerry R. Rutherford
Quality Assurance: Vaughn E. Chase, Charlotte D. Schaefer

25 Years

Administration and Purchasing: Toletha M. Davis, Valerie F. Homan, Sandra R. Schwartz
Engineering: Stephanie J. Patton
Environment, Safety and Health: Gail R. Harp
Facilities, Infrastructure and Services: Connie M. Brewster, Olvin Jackson, Roy H. Martin, Thomas H. Peek, Robert E. Ryan, Rickey R. Wilson
Manufacturing: Rebekah J. Durant, Laverta A. Hardin, Arlie L. Jenkins, Tommy L. Miller, Neta C. Wilcox
Quality Assurance: Wanda F. Wimes

20 Years

Environment, Safety and Health: Bruce R. Fortune, Tammie T. Foster
Facilities, Infrastructure and Services: Dennis W. Graves
Manufacturing: Daniel J. Lawson
Proliferation Threat Assessments and Sensitive Compartmented Information Facility: Joy D. Nix
Quality Assurance: Randy T. Palmer, Robert R. Wagner



When will the annual personal benefit summary booklet be mailed to Y-12 employees?

These booklets will be mailed the last week in April.

Safety Expo drawing contest announced

BWXT Y-12 is sponsoring a drawing contest that is open to all students in the Oak Ridge, Anderson County and Knox County school systems and those children whose relatives and friends are employed by Y-12.

Official rules and information will soon be available on the Safety Expo 2003 Web site at <http://www.y12.doe.gov/esh/expo2003>. For more information, contact Melissa Beauvais (4mb; 574-2768) or Sabrina Hampton (sax; 576-0716).



Protect your health— support Relay for Life



Auction: Saturday, April 26, at 10 a.m.
(Pre-auction inspection at 9 a.m.)

YWCA in Oak Ridge, 1660

Oak Ridge Turnpike

Powell Auction & Realty (FL 735 TAL 1316)

Framed prints by Sandy Dean, child's antique sled, a car and much more

Relay: Friday, May 2, at the Oak Ridge Civic Center

Survivor registration at 5 p.m. (free dinner)

Opening ceremony at 6 p.m.

Historical and health education displays at the Y-12 tent

Support the Y-12 team by purchasing baked potatoes with fixings for \$5

Bring the children and enjoy a demonstration by K-9 Search On Site

To donate items for the auction or for more information, contact Debbie Hunter (ltk; 574-8022) or Sherry Barrow (574-3345) or visit the Powell Auction web site (<http://www.powellauction.com>)



From left, Debbie Reed, Debbie Hunter and Jan Mincey display some of the items that will be available at the Relay for Life auction.

State homeland security chief to address INMM

Major General Jerry D. Humble, director of Tennessee's Office of Homeland Security, will deliver the keynote address April 29 at the Institute of Nuclear Materials Management Safeguards and Security Workshop in Oak Ridge.

Fitting with the "Safeguards and Security: A New Era" theme, Humble will speak about the focus on homeland security in this post-9/11 era.

Humble, a two-star general in the U.S. Marine Corps, recently retired after 33 years of active duty. Most recently, he served as the commanding general of the U.S.M.C. Recruiting Command in Quantico, Va. His address will kick off the three-day workshop.

President and General Manager Dennis Ruddy will also address the attendees. His talk regarding 9/11's impact on U.S. Department of Energy/National Nuclear Security Administration facilities and security is tentatively scheduled for Wednesday, April 30.

For registration information, visit the INMM Web site at www.y12.doe.gov/inmm, or contact Debbie Matteo (m5d; 241-2565) or John Sorbo (sjn; 576-2363).

MEDIC blood drive

On March 17, 62 donors participated in the Emergency MEDIC Blood Drive held at Y-12. Blood donated during this drive could be designated for Dylan Ashburn, nephew of Debbie Thomas in Badging. Dylan has been diagnosed with T-cell lymphoblastic lymphoma—a type of cancer. He has had 10 blood transfusions and will require additional ones. The blood donated helped to defray costs for his family for future transfusions. Thanks to all who donated.

UPCOMING DATES

June 2, 3, 4, 5 - Mobile Unit, June 2, 3 - 9723-24 Ballroom

For more information about the Medic Blood Drive, please contact Mary Bates (hmb) at 574-0896 or check the Web site at www-internal.y12.doe.gov/PR/BD/y-12bd.htm.



Enjoy spring at Biltmore Estates

Upcoming Events

The Y-12 Employees' Society is offering tickets to tour Biltmore Estates in Asheville, N.C. This time of year is beautiful there. If you've never been, it's well worth the cost. Adult tickets are \$32 (non-members \$33), and youth tickets (ages 10–15) are \$24 (non-members \$25). Children under 10 are admitted free. Contact Sylvia Davis at 576-7296 for tickets.

YES is planning a bus trip to Biltmore later this year. Watch the YES Web site (<http://www1.y12.doe.gov/scripts/yes/yeshome.cfm>) for details.

While at the Web site, be sure to check out the new classified ads (<http://www1.y12.doe.gov/scripts/yes/ads.cfm>).

Got stress?

Do you wake up tired? Does your stomach scream without provocation? Do you find yourself snapping at people for no good reason? If you answered yes to any of these questions, you're probably stressed, and you're not alone.

Stress is a part of everyone's life. People don't realize that often the joys in life can bring on as much stress as the sorrows. Starting a new job, for example, can be every bit as stressful as being laid off. While distressful circumstances can do more damage, all situations involving adjustment, positive and negative, can be stressful.

Stress overload can happen to anyone. People who find their work personally rewarding may be able to handle on-the-job stressors better than those who don't, according to some psychologists.

Stretching exercises, such as those taught in Y-12's Stretching Program, can help.



Signs of stress

- Tension in your neck and/or shoulders
- Gastrointestinal problems
- Gain or loss of appetite
- Difficulty sleeping
- Irritability and/or overemotional reactions

Ways to reduce stress

- Get rid of whatever stressors you can
- Determine the sources of your stress
- Try relaxation techniques when you are feeling stressed

(Adapted from CareerIntelligencer.com)

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